IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	:	
Bernd RIEDL et al.	:	Group Art Unit: 1624
Serial No.: 09/993,647	:	Examiner: RAO, Deepak R.
Filed: November 27, 2001	:	

For: ω-CARBOXYARYL SUBSTITUTED DIPHENYL UREAS AS RAF KINASE INHIBITORS

BRIEF ON APPEAL

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Sir:

Further to the Notice of Appeal filed June 22, 2004, attached herewith are three copies of Appellants Brief on Appeal. The statutory fee of $330.00 for filing the brief is submitted herewith. The Commissioner is authorized to charge deposit account 13-3402 for any deficiency.

(I) Real Party in Interest

The real party in interest is : BAYER PHARMACEUTICALS CORPORATION, 400 Morgan Lane, West Haven, Connecticut 06516, United States of America, a corporation organized under the laws of the State of Delaware, United States of America.

CERTIFICATION OF MAILING

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Name: **Sharon McDaniel**

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(II) Related Appeals and Interferences

There are no appeals or interferences known to Appellant or Appellant's legal representative which will be directly affected by or have any bearing on the Board's decision in the pending appeal.

(III) Status of the Claims

Claims 68, 74, 80, 81, 87 and 93 are pending in this application. Claims 68, 74, 80, 81, 87 and 93 are rejected and are the subject of this appeal. The claims on appeal are attached hereto as Appendix A.

(IV) Status of Amendments After Final

An amendment after final has been filed simultaneously with the filing of this brief. The amendment replaces the phrase "One or more compounds which are" in claim 68 with the language: " A compound selected from .... or a mixture thereof," as proposed by the examiner. It is assumed the Examiner will enter the amendment since it complies with his wishes. The resultant claims are shown in Appendix B.

(V) Summary of the Invention

The claimed invention here relates to a group of five urea compounds which are:

N-(5-*tert*-butyl-2-methoxy phenyl)-*N'*-(4-(4-methoxy-3-(*N*-methylcarbamoyl)phenoxy)phenyl) urea,

N-(2-methoxy-5-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea,

N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-carbamoyl-4-pyridyloxy)phenyl) urea,

N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea; and

N-(2-methoxy-4-chloro-5-(trifluoromethyl)phenyl)-*N'*-(3-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea. See Entries 5, 13, 42, 43 and 98 in the examples (pages 57,59,66 and 78) and the Tables (pages 81,82, 86 and 93). The individual urea compounds and mixtures thereof are claimed in claim 68. Each of the five compounds has been found to inhibit the enzyme raf kinase (see page 2 , line 10) using assays such as the assays disclosed in the specification on pages 94-96.

The claimed invention also relates to methods for treating cancers (see page 2, lines17-20) or cancerous cell growth, in each case, mediated by the enzyme raf kinase (see page 2, line 14). These methods comprise administering one or more of the five ureas listed above (see claim 74). The methods of this invention include the treatment of solid cancers, carcinomas such as carcinomas of the lung, pancreas, thyroid, bladder or colon, myeloid disorders such as myeloid leukemia and adenomas such as villous colon adenomas (See page 2, lines 17-20 and claims 80, 81 , 87 and 93).

(VI) Issues

1. Whether the specification enables the methods of claims 74, 80, 81, 87 and 93 to satisfy the requirements of 35 U.S.C. §112, first paragraph.

2. Whether claim 68 is sufficiently definite to satisfy the requirements of 35 U.S.C. §112, second paragraph.

3. Whether the claims 68, 74, 80, 81, 87 and 93 are unobvious over Miller et al. (WO 99/32463) and satisfy the requirements of 35 U.S.C. §103(a).

There is also a provisional rejection of claims 68, 74, 80, 81, 87 and 93 under the judicially created doctrine of obviousness type double patenting over claims 68-98 of copending Application No. 10/042,203. However, this rejection is moot if issues 1 - 3 are resolved in applicant's favor. See third to last sentence of the Interview Summary of May 6, 2004. Thus, applicants rely on the appeal on issues 1 – 3 and the latter sentence. No arguments on the double patenting rejection are being submitted or are necessary.

(VII) Grouping of Claims

1) Issue 2 only applies to one claim, claim 68.

2) The pending claims do not stand or fall together with respect to Issue 3 because as explained below, method claims 74, 80, 81,87 and 93 are nonobvious for even more reasons than compound claim 68 is nonobvious.

(VIII) Arguments

Issue 1. Whether the specification enables the methods of claims 74, 80, 81, 87 and 93 to satisfy the requirements of 35 U.S.C. §112, first paragraph.

The specification provides a number of publications which have correlated the inhibition of raf kinase with the inhibition of the growth of a variety of tumor types (Monia et al.), correlated the inhibition of raf expression with blocking cell proliferation (Kolch et al.) or correlated the inhibition of the raf kinase pathway with the reversion of transformed cells to the normal growth phenotype (Daum et al., Fridman et al).

No evidence has been presented to refute the findings or conclusions made in these publications. In addition, no evidence has been presented that any compounds of this invention, as inhibitors of raf kinase, would not be effective in treating the cancers identified. Only unsupported allegations and conclusions regarding the art of cancer treatment are provided to support the rejection such as, "the art does not identify a single class of compounds that can treat all of these types of cancers generally," "rigorous planned and executed clinical trials... are critical for selecting the optimal dose and schedule," and "applicants have not provided sufficient test assays to or data to support the method of treatment commensurate in scope with the claims, as of the filing date of the application." Besides being unsupported, even if true, these allegations are irrelevant to enablement, as discussed below.

In any event, the specification also otherwise provides ample guidance as to how to prepare pharmaceutical compositions with the compounds of this invention and how to

administer these compositions in the treatment of cancers. See, e.g., pages 10-14. The specification also provides dosage ranges for the various methods of administration (see page 13). Given the extent of the disclosure provided, it would at most involve routine experimentation if any at all, for one of ordinary skill in the art to treat any one of the recited cancers with a compound of this invention.

Even absent the specification disclosures discussed above, the rejection is clearly deficient in general under controlling case law. The courts have placed the burden upon the PTO to provide evidence shedding doubt on the disclosure that the invention can be made and used as stated; see, e.g., *In re Marzocchi*, 439 F.2d 220, 169 U.S.P.Q. 367 (CCPA 1971) (holding that how an enablement teaching is set forth, either by use of illustrative examples or by broad terminology, is of no importance.) The disclosure must be taken as in compliance with the enablement requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein. See *In re Marzocchi*, supra. No such evidence or reason for doubting Applicants' disclosure has been provided. Only general statements and conclusions are made.

Additionally, "the [enablement] requirement is satisfied if, given what they [, those of ordinary skill in the art,] already know, the specification teaches those in the art enough that they can make and use the claimed invention without 'undue experimentation.'" See *Amgen v Hoechst Marion Roussel*, 314 F.2d 1313, 65 USPQ2d 1385 (Fed. Cir. 2003). Using the claimed compounds would be routine for those of ordinary skill in the art in view of applicant's disclosure. Explicitly providing dedicated assays for each form of cancer is not necessary to enable the methods claimed. See, for example, *In re Howarth,* 654 F.2d 105, 210 U.S.P.Q. 689 (CCPA 1981) ("An inventor need not ... explain every detail since he is speaking to those skilled in the art."); *In re Gay*, 309 F.2d 769, 774, 135 U.S.P.Q 311 (CCPA 1962) ("Not every last detail is to be described, else patent specifications would turn into production specifications, which they were never intended to be.")

There is no requirement that an applicant provide any working examples relating to the treatment of every claimed disease to satisfy the statute. See, for example, *In re Angstadt*, 537 F.2d at 502-03, 190 USPQ 214 (CCPA 1976) (deciding that applicants "are *not* required to disclose *every* species encompassed by their claims even in an unpredictable art");

Utter v Higara, 845 F.2d at 998-99, 6 USPQ2d 1714 (Fed. Cir. 1988) (holding that a specification may, within the meaning of Section 112, Para. 1, enable a broadly claimed invention without describing all species that claim encompasses). Instead, as discussed earlier, there is no requirement for any examples. See, for example, *Marzocchi*, supra, stating that how "an enabling teaching is set forth, either by use of illustrative examples or by broad terminology, is of no importance." The MPEP also agrees by stating that "compliance with the enablement requirement of 35 U.S.C. 112, first paragraph, does not turn on whether an example is disclosed." See MPEP § 2164.02.

The PTO has failed to meet its burden of establishing that the disclosure does not enable one skilled in the art to make and use the compounds recited in the claims. Instead of relying on proper probative evidence, the rejection is improperly based on bare allegations and conclusions. No evidence has been presented which would demonstrate that the guidance provided by the specification is inadequate to enable the use of the claimed compounds without undue experimentation.

As for the bare allegations quoted above from the office action, as discussed in Wands, cited by the Examiner, "considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed." Moreover, with respect to pharmaceutical inventions, an applicant is not required to test the claimed compounds in their final use (rigorous planned and executed clinical trials..." per the Examiner). The Federal Circuit in *In re Brana*, 51 F.3d 1560, 34 USPQ 1436 (Fed. Cir. 1995), stated that:

> usefulness in patent law, and in particular in the context of pharmaceutical inventions, necessarily includes the expectation of further research and development. The stage at which an invention in this field becomes useful can be well before it is ready to be administered to humans. If the courts were to require Phase II testing in order to prove utility for pharmaceutical inventions, the associated costs would prevent many companies from obtaining patent protection on promising new inventions, thereby eliminating an incentive to pursue, through research and development, potential cures in many crucial areas.

Here, the specification provides more than it needs to, e.g, *in vitro* raf kinase assays (and IC_{50} data) and *in vivo* assays (see pages 94 and 96). In similar fashion, one of ordinary

skill in the art by performing the same or similar tests, can, by routine experimentation, determine the activity levels of each of the claimed compounds in treating various cancers. This is absolutely routine in the field.

Thus, appellants have provided more than adequate guidance (and examples) to enable the claimed invention.

For the reasons discussed above, Applicants submit that claims 74, 80, 81, 87 and 93 meet the requirements of 35 U.S.C. § 112, first paragraph.

Issue 2, Whether claim 68 is sufficiently definite to satisfy the requirements of 35 U.S.C. §112, second paragraph.

The preamble, "One or more compounds which are," has been objected to but no evidence or reasons have been provided to support the rejection or to explain why the phrase is allegedly confusing. This preamble indicates that the specific compounds are included individually and in combination with each other. Those skilled in the art will recognize when one of the compounds is employed and when more than one of the compounds is employed, such as in a mixture. The claim is sufficiently definite to satisfy the statute. Note *Ex parte Cordova*, 10 U.S.P.Q. 2d 1949 (Bd. App.1988), holding that the related term "optionally" is not indefinite.

Issue 3. Whether the claims 68, 74, 80, 81, 87 and 93 are unobvious over Miller et al. (WO 99/32463) and satisfy the requirements of 35 U.S.C. §103(a).

All of the method claims are not obvious.

All of the method claims (74, 80, 81, 87 and 93) recite "treatment of a cancerous cell growth mediated by RAF kinase." The sole relied-on reference (WO 99/32463 to Miller et al.) deals only with compounds disclosed as useful "for treatment of p38-mediated disease states." (See, e.g., Page 7, line 21) Miller et al. does not mention treatment of cancerous cell growth mediated by RAF kinase or treatment of any other RAF kinase mediated disease. On this basis alone, it can be seen that the rejection of all the method claims as allegedly obvious over Miller et al. is unsound and must be reversed.

In addition, all of these method claims are also non-obvious on the same basis as compound claim 68 is non-obvious as explained below.

Compound Claim 68 is not obvious

The non-obviousness of the compounds of claim 68 is controlled by strong Federal Circuit precedent highly analogous to the facts at hand. Exemplary such Federal Circuit cases include *In re Jones*, 958 F.2d 347, 21 U.S.P.Q. 2d 1941 (Fed. Cir. 1992) and *In re Baird*, 16 F.2d 380, 29 U.S.P.Q. 2d 1550 (Fed. Cir. 1994), (copies attached for convenience).

Claim 68 recites a small number of compounds, i.e., five individual species. Similarly, both *Jones* and *Baird* involved claims to a small number of species. In *Jones*, only a single species was claimed; in *Baird* six species were claimed. The Examiner here is relying on a single reference (Miller et al.); in both *Jones* and *Baird*, for the relevant portions of these decisions, the Examiner also relied on only a single reference. The prior art general formula at issue here generically encompasses a very large number of individual compounds. Likewise, in both *Jones* and *Baird*, the general disclosures of the references encompassed a very large number of individual compounds. Here, there is no anticipation alleged; likewise, in *Jones* and *Baird* there was no anticipation alleged. Here, the Examiner is pointing to certain specific disclosures in the reference which together or in combination with the generic disclosure allegedly render the five species obvious. Likewise, the Examiner in both *Jones* and *Baird* relied on specific disclosures in the references which together or in combination with the generic disclosure allegedly rendered the claims obvious. In both cases, the Federal Circuit held that there was no obviousness of the claimed compounds. For highly analogous reasons explained below, it is similarly clear that the five compounds of claim 68 are not rendered obvious by Miller et al.

Firstly, since the Examiner has incorporated by reference the reasons for the rejection stated in the Office Action of December 15, 2003, it appears that the Examiner still maintains that "a prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within a genus." The Examiner relies on *Merck & Co. v. Biocraft Laboratories*, 847 F.2d 804, 10 U.S.P.Q. 2d 1843, 1846 (Fed. Cir. 1989).

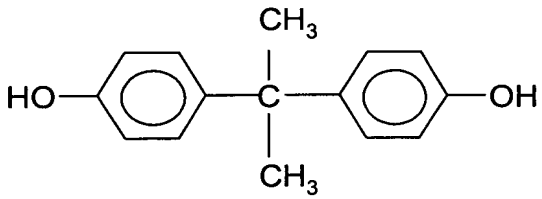
This position has been held in *Jones* specifically <u>not</u> to be the law:

> We decline to extract from *Merck* the rule that the Solicitor appears to suggest – that regardless of how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it. ... In contrast, though Richter discloses the potentially infinite genus of "substituted ammonium salts" of dicamba, and lists several such salts, the salt claimed here is not specifically disclosed. Nor, as we have explained above, is the claimed salt sufficiently similar in structure to those specifically disclosed in Richter as to render it *prima facie* obvious. (21 U.S.P.Q. 2d at 1943)

Clearly, the Examiner's reliance on *Merck v. Biocraft* is misplaced; the compounds of the claims are not obvious based on the general formula of Miller et al. Whereas the compounds may fall within the scope of Miller et al, there is no motivation to select any of them from among the very large number of compounds generically encompassed.

Similarly, there is no specific disclosure in Miller et al. which would lead a skilled worker to prepare any of the five claimed compounds; nothing motivates a skilled worker to make the changes necessary to the specific prior art compounds relied on by the examiner to arrive at the claimed compounds. Without such motivation, there cannot be a prima facie case of obviousness (*Jones*, 21 U.S.P.Q. 2d at 1944)

Baird's claimed compounds had the following structure:



wherein each of the two OH-groups was esterified with one of three dicarboxylic acids (succinic (4 carbon atoms), glutaric (5 carbon atoms) or adipic (6 carbon atoms).) The reference had a very broad general formula encompassing, in very general terms, compounds possessing both components of Baird's claims, i.e., the above-pictured central diphenyl moiety (bisphenol A) and the terminal dicarboxylic acid esterifying groups. However, the general formula also disclosed the possibility of highly varied substitution on each of the phenyl rings, the possibility that the central three carbon atom propyl moiety to which each phenyl group is joined in the bisphenol A structure pictured above could instead also be a

very wide variety of groups such as other alkylene groups, alkylidene groups or cycloalkylidene groups. Instead of the hydroxy groups at the terminal positions of bisphenol A, the phenyl rings in the reference could also be any of a large variety of possibilities, where between the O atom and the H atom of hydroxyl, there could be present $(RO)_x$ groups which were the same or different. The reference also specifically named, among twenty typical dicarboxylic acids for esterification, the three recited in Baird's claim.

The Court in *Baird* relied on the *Jones* holding quoted above, to quickly dismiss the Patent and Trademark Office's contention that the generally encompassing formula alone was sufficient to render Baird's claimed species obvious. The Patent and Trademark Office, however, "repeatedly emphasized[s]" that Baird's more specific disclosure disclosed "derivatives" of bisphenol A. The Court described these derivatives, showing that they differed from the above-pictured bisphenol A by containing between the O and H atoms in the terminal hydroxy groups, a variety of alkoxy moieties. The Court emphasized that by focusing on these preferred moieties, (derivatives of bisphenol A containing -O-ethyl, -O-propyl, -O-isopropyl), Baird was teaching away from the selection of bisphenol A itself. By suggesting such derivatives, the reference "does not describe or suggest bisphenol A and therefore does not motivate the selection of bisphenol A." (*Baird*, 29 U.S.P.Q. 2d at 1552)

The Court concluded that given (a) the vast number of diphenols encompassed by the reference's general disclosure, and (b) that the mentioned diphenols more specifically disclosed by the reference as typical, preferred or optimum were different from *Baird's* bisphenol A structure, the reference did not suggest the selection of bisphenol A.

Analogously here, the Examiner is relying on certain specific disclosures of Miller et al. Namely, the Examiner relies on compounds 34 and 101, in combination with the general formula of the reference at Page 9, lines 1-9 and the specific disclosure of the reference at Page 16, lines 6-7, naming yet another species.

Compounds 34 and 101 are relied on by the Examiner because they disclose, respectively, the structures of the first and second compounds listed in claim 68, except for lacking the 3-(N-methylcarbamoyl) substituent on the oxygen-bridged phenyl ring in the first compound and on the oxygen-bridged pyridyl ring in the second named compound.

As for the combination of these structures with Miller et al's. general formula, *Baird* and *Jones* unambiguously hold that the latter formula cannot be used to suggest for the

species of Miller et al. (34 and 101) that the 3-hydrogen atom (and only that atom) in the respective phenyl or pyridyl rings be replaced by N-methylcarbamoyl, among the myriad possible structural modifications which can be found in Miller et al's. general formula. Nothing in the reference's general disclosure suggests that compounds 34 and 101 should be modified as required to arrive at the claimed compounds. That they could be so modified does not establish obviousness. *Jones*, above.

This conclusion does not change when further considering the additional compound's structure relied on by the Examiner at Page 16, lines 6-7 of the reference. This particular compound falls within a section of the reference which names twelve compounds (including the one relied on by the Examiner) under the heading: "Preferred 5-trifluoromethylphenyl ureas are:" In other words, the reference specifically categorizes the species on which the Examiner relies as "preferred" within a certain subclass of its own ureas, i.e., that where the unbridged-phenyl ring has a 5-trifluoromethyl substituent. In the cases of all twelve "preferred" species listed by Miller et al, this phenyl ring is also substituted by 2 methoxy, and, again, in all twelve cases, the other oxygen-bridged ring is always phenyl. Just as in *Baird*, this preferred subgenus of twelve species thus teaches away from each of the two claimed species discussed by the Examiner.

In the case of the first compound named in claim 68, the caption of the reference's subsection relied on by the Examiner alone shows its listed preferences are inapplicable to its compound 34 (and to the first compound of claim 68 as well), because there is no "5-trifluoromethyl" substituent on the unbridged phenyl ring in compound 34. Again, under *Baird*, the reference teaches away. In the case of the other compound (101) on which the Examiner relies (and also the second compound of claim 68), the oxygen-bridged ring is pyridyl, not phenyl, as is the case for all twelve species of the reference. Again, under *Baird*, this reference teaches away.

Note in this regard, particularly, the analysis used by the Court in *Jones*. The group at issue in Jones had the structure

$$-NH_2\text{-}CH_2CH_2\text{-}O\text{-}CH_2CH_2OH.$$

The PTO tried to rely on the single reference's compound having two CH_2CH_2OH groups attached to a single N atom, instead of linked together as shown above. The Court stated that one could not ignore the fact that the two CH_2CH_2OH groups were not joined together to

form the ether linkage-containing group required in the claim. One could not simply rely on the "-CH_2CH_2O-" features of the reference; one had to consider the entirety of the structure involved. The Patent and Trademark Office also tried to rely on a morpholino group in the single reference wherein the nitrogen atom has two ethyl groups bonded to it and linked to each other by a single oxygen atom, thereby allegedly providing the "missing" ether oxygen noted above. Again, the Court stated that one could not ignore the entirety of the structure, i.e., the fact that this prior art group compound was cyclic. One could not apply components of its structural features in isolation apart from the group's overall structure. Other similar analyses were rejected by the Court.

Thus under *Jones*, the fact that, for a certain disclosed compound, 3-N-methylaminocarbonyl is used as a substituent on a phenyl ring does not create motivation to employ this substituent on any position of any other ring of any other particular compound. Disclosure of this particular species with its particular set of preferred structural components, under *Baird* and *Jones*, does not motivate a skilled worker to select any of its structural features in isolation and apply them to other compounds in the reference.

Furthermore, motivation to modify as required is lacking for the first named compound of claim 68 because neither compound 34 nor the preferred compound relied on from page 16, lines 6 - 7 contains an oxygen-bridged phenyl ring with two substituents, as in the first named compound of claim 68. Motivation is additionally lacking for the second named compound of claim 68 because neither compound 101 nor the preferred compound relied on from page 16, lines 6 - 7 contains an oxygen-bridged pyridyl ring having any substituent at all.

The Examiner does not explain at all how any of the other compounds named in claim 68 are allegedly obvious in view of Miller, et al. None is obvious.

As can be seen, highly analogous Federal Circuit structural non-obviousness decisions clearly demonstrate the fallacy in the Examiner's position, which, it is respectfully submitted, should be reversed.

Clarifications

The argument embodied in Applicants' reply of March 15, 2004, on Page 5, second full paragraph is hereby withdrawn because it is appropriate, under current U.S. law, only to the method claims. See above.

In line 5 of page 5 of the same reply, there is a typographical error. The word "unobvious," clearly in context should have been "obvious."

(IX) Conclusion

For the reasons stated above, Appellants respectfully submit the subject matter of the pending claims is novel and unobvious over the cited reference and the specification and claims satisfy the requirements of 35 U.S.C. §112, first and second paragraph. Therefore, Appellants respectfully request the outstanding rejections be reversed.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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APPENDIX A

Claims 68,74 80,81 87 and 93

68. One or more compounds which are:
N-(5-*tert*-butyl-2-methoxy phenyl)-*N'*-(4-(4-methoxy-3-(*N*-methylcarbamoyl)phenoxy)phenyl) urea,
N-(2-methoxy-5-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-carbamoyl-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea; or
N-(2-methoxy-4-chloro-5-(trifluoromethyl)phenyl)-*N'*-(3-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea.

74. A method for the treatment of a cancerous cell growth mediated by RAF kinase comprising administering one or more compounds which are
N-(5-*tert*-butyl-2-methoxy phenyl)-*N'*-(4-(4-methoxy-3-(*N*-methylcarbamoyl)phenoxy)phenyl) urea,
N-(2-methoxy-5-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-carbamoyl-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea; or
N-(2-methoxy-4-chloro-5-(trifluoromethyl)phenyl)-*N'*-(3-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea.

80. A method as in claim 74 for the treatment of solid cancers.

81. A method as in claim 74 for the treatment of carcinomas, myleoid disorders or adenomas.

87. A method as in claim 74 for the treatment of carcinoma of the lung, pancreas, thyroid, bladder or colon.

93. A method as in claim 74 for the treatment of myeloid leukemia or villous colon adenomas

APPENDIX B

Claims 68,74 80,81 87 and 93, as amended in amendment filed with brief

68. A compound selected from:
N-(5-*tert*-butyl-2-methoxy phenyl)-*N'*-(4-(4-methoxy-3-(*N*-methylcarbamoyl)phenoxy)phenyl) urea,
N-(2-methoxy-5-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-carbamoyl-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea; and
N-(2-methoxy-4-chloro-5-(trifluoromethyl)phenyl)-*N'*-(3-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea,
or a mixture thereof.

74. A method for the treatment of a cancerous cell growth mediated by RAF kinase comprising administering one or more compounds which are
N-(5-*tert*-butyl-2-methoxy phenyl)-*N'*-(4-(4-methoxy-3-(*N*-methylcarbamoyl)phenoxy)phenyl) urea,
N-(2-methoxy-5-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-carbamoyl-4-pyridyloxy)phenyl) urea,
N-(4-chloro-3-(trifluoromethyl)phenyl)-*N'*-(4-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea; or
N-(2-methoxy-4-chloro-5-(trifluoromethyl)phenyl)-*N'*-(3-(2-(*N*-methylcarbamoyl)-4-pyridyloxy)phenyl) urea.

80. A method as in claim 74 for the treatment of solid cancers.

81. A method as in claim 74 for the treatment of carcinomas, myeloid disorders or adenomas.

87. A method as in claim 74 for the treatment of carcinoma of the lung, pancreas, thyroid, bladder or colon.

93. A method as in claim 74 for the treatment of myeloid leukemia or villous colon adenomas

Plaintiff points to its own actions as evidence of its apprehension of suit. For example, it cites a letter that its patent counsel sent to Defendant regarding its position that it was not infringing the '559 patent. (Pl. Br. at 8; Pl. Exh. C.)

The court is not persuaded that Plaintiff's own perceptions of Defendant's actions constitute the type of objective evidence required to prove a reasonable apprehension of suit. Rather, the "apprehension of suit' prong of the relevant test, described above, focuses on the defendant's, not plaintiff's conduct. *Arrowhead Industrial Water, Inc. v. Ecolochem, Inc.*, 846 F.2d 731, 736 [6 USPQ2d 1685] (Fed. Cir. 1988).

In conclusion, the court is not persuaded that Plaintiff has a reasonable apprehension of suit by Defendant. Defendant has not sued Plaintiff, nor threatened to sue Plaintiff, nor made any demands on Plaintiff; moreover, there has been no evidence submitted that Defendant is threatening to sue other parties who produce the same items as Plaintiff. Thus, Plaintiff has failed to indicate that there is before this court a justiciable case or controversy, permitting analysis of the propriety of declaratory judgment. Because Plaintiff has failed to indicate that it has a reasonable apprehension of suit by Defendant, the court need not address the second prong of the applicable analysis — whether or not it has actually produced or prepared to produce the allegedly infringing product. Defendant's motion will be granted. An appropriate order will be issued.

ORDER

In accordance with the accompanying memorandum, IT IS HEREBY ORDERED THAT:

(1) Defendant's motion to dismiss is GRANTED.

(2) The clerk of court is directed to close this case.

Court of Appeals, Federal Circuit

In re Baird

No. 93-1262

Decided January 19, 1994

PATENTS

1. Patentability/Validity — Obviousness — Relevant prior art — Particular inventions (§115.0903.03)

Application claim for flash fusible toner is not obvious in view of prior patent, even though generic diphenol formula of patent encompasses bisphenol A of claim, since disclosure of generic formula that may encompass claimed compound does not, without more, render compound obvious, and since generic diphenol formula of patent contains large number of variables and encompasses estimated 100 million different diphenols in addition to bisphenol, but patent does not suggest selection of specific variables to formulate that compound and specifically discloses diphenols which are different from, and more complex than, bisphenol A; prior patent's specific enumeration of derivatives of bisphenol A does not warrant contrary conclusion, since suggestion of certain complex bisphenol A derivatives does not describe or suggest bisphenol A itself and thus does not motivate its selection.

— —

Appeal from the U.S. Patent and Trademark Office, Board of Patent Appeals and Interferences.

Patent application of Brian W. Baird, Art F. Diaz, William H. Dickstein and Charles M. Seymour, serial no. 07/333,524 (flash fusible toner resins). From decision upholding examiner's final rejection of claims 1-5 on ground of obviousness under 35 USC 103, applicants appeal. Reversed.

John A. Brady, Lexington, Ky., for appellant.

Adriene B. Lepiane, assistant solicitor, PTO (Fred E. McKelvey, solicitor, and Richard E. Schafer, associate solicitor, with her on brief), for appellee.

Before Michel, Plager, and Lourie, circuit judges.

Lourie, J.

Applicants Brian W. Baird, Art F. Diaz, William H. Dickstein, and Charles M. Seymour (collectively Baird) [1] appeal from the October 15, 1992 decision of the U.S. Patent and Trademark Office (PTO) Board of Patent Appeals and Interferences, Appeal No. 92-0860, affirming the examiner's final rejection of claims 1-5 of application Serial No. 07/333,524, entitled "Flash Fusible Toner Resins," as unpatentable on the ground of obviousness under 35 U.S.C. § 103 (1988). We reverse.

[1] The real party in interest is Lexmark International, Inc.

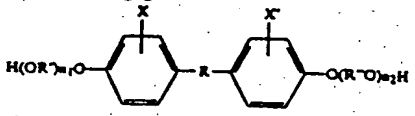
BACKGROUND

Baird's application is directed to a flash fusible toner comprising a polyester of bisphenol A and an aliphatic dicarboxylic acid. Synthesis of the toner compositions involves the acetylation of bisphenol A and the reaction of that product with an aliphatic dicarboxylic acid selected from the group consisting of succinic acid, glutaric acid, and adipic acid. The application discloses that toners containing bisphenol A have optimal characteristics for flash fusing including, *inter alia*, high thermal stability and low critical surface energy.

Claim 1, the only claim at issue, reads as follows:

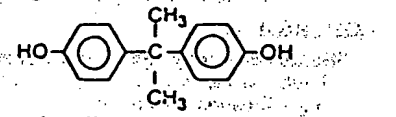
1. A flash fusible toner comprising a binder resin which is a bisphenol A polyester containing an aliphatic di[carboxylic] acid selected from the group consisting of succinic acid, glutaric acid and adipic acid.

Claim 1 stands rejected as obvious over U.S. Patent 4,634,649 to Knapp et al., which relates to developer compositions comprised of, *inter alia*, the polymeric esterification product of a dicarboxylic acid and a diphenol of the following generic formula:



wherein R is selected from substituted and unsubstituted alkylene radicals having from about 2 to about 12 carbon atoms, alkylidene radicals having from 1 to 12 carbon atoms and cycloalkylidene radicals having from 3 to 12 carbon atoms; R′ and R″ are selected from substituted and unsubstituted alkylene radicals having from 2 to 12 carbon atoms, alkylene arylene radicals having from 8 to 12 carbon atoms and arylene radicals; X and X′ are selected from hydrogen or an alkyl radical having from 1 to 4 carbon atoms; and each n is a number from 0 (zero) to 4.

Col. 4, lines 16-38. The Knapp formula contains a broad range of variables and thus encompasses a large number of different diphenols, one of which is bisphenol A, which is shown in Baird's application as having the following structure:



Knapp also discloses that the dicarboxylic acids have the general formula:

HOOCR″ $_{n_3}$COOH

wherein R″ ′ is a substituted or unsubstituted alkylene radical having from 1 to 12 carbon atoms, arylene radicals or alkylene arylene radicals having from 10 to 12 carbon atoms and n_3 is a number of less than 2.

Col. 5, lines 6-14. Twenty typical dicarboxylic acids are recited, including succinic acid, glutaric acid, and adipic acid, the dicarboxylic acids recited in claim 1.

The examiner rejected claim 1 as obvious on the ground that Knapp specifically discloses as components of his esters the three dicarboxylic acids recited in claim 1 and a generic formula which encompasses bisphenol A. Recognizing that bisphenol A is defined when certain specific variables are chosen, the examiner reasoned that bisphenol A "may be easily derived from the generic formula of the diphenol in [Knapp] and all the motivation the worker of ordinary skill in the art needs to arrive at the particular polyester of the instant claim[ ] is to follow [that formula]."

The Board upheld the examiner's rejection. It rejected Baird's argument that there was no motivation for one to select bisphenol A from Knapp and summarily concluded that "the fact that [the claimed] binder resin is clearly encompassed by the generic disclosure of Knapp . . . provides ample motivation for the selection of [the claimed composition]." Slip op. at 3. The Board's decision was affirmed on reconsideration.

DISCUSSION

The only issue before us is whether the record supports the Board's conclusion that, in view of the teachings of Knapp, the claimed compounds [2] would have been obvious to one of ordinary skill in the art. We review an obviousness determination by the Board *de novo*, while we review underlying factual findings for clear error. *In re Beattie*, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1041 (Fed. Cir. 1992).

Baird does not dispute the fact that the generic diphenol formula of Knapp encompasses bisphenol A. Nor does Baird dispute that Knapp specifically discloses the three dicarboxylic acids recited in claim 1. Rather, Baird argues that there is no suggestion in Knapp to select bisphenol A from the vast

[2] Since the toner, the resin, and the polyester compounds appear to be treated in the Board opinion and patent application as synonymous, and the PTO has premised its obviousness rejection on the obviousness of the compounds, we will treat this case accordingly.

number of diphenols covered by the generic formula and that the Board thus erred in concluding that the claimed compounds would have been obvious.

[1] What a reference teaches is a question of fact. *Beattie*, 974 F.2d at 1311, 24 USPQ2d at 1041. The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious. *In re Jones*, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992) (rejecting Commissioner's argument that "regardless [ ] how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it"). *Jones* involved an obviousness rejection of a claim to a specific compound, the 2-(2'-aminoethoxy)ethanol salt of 2-methoxy-3,6-dichlorobenzoic acid (dicamba), as obvious in view of, *inter alia*, a prior art reference disclosing a genus which admittedly encompassed the claimed salt. We reversed the Board's rejection, reasoning that the prior art reference encompassed a "potentially infinite genus" of salts of dicamba and listed several such salts, but that it did not disclose or suggest the claimed salt. *Id.*

In the instant case, the generic diphenol formula disclosed in Knapp contains a large number of variables, and we estimate that it encompasses more than 100 million different diphenols, only one of which is bisphenol A. While the Knapp formula unquestionably encompasses bisphenol A when specific variables are chosen, there is nothing in the disclosure of Knapp suggesting that one should select such variables. Indeed, Knapp appears to teach away from the selection of bisphenol A by focusing on more complex diphenols, including 2,2-bis (4-beta-hydroxyethoxyphenyl) propane, 2,2-bis(4-hydroxypropoxyphenyl) propane, and 2,2-bis(4-hydroxyisopropoxyphenyl)propane. Col. 4, lines 51-64. Knapp teaches that in preferred diphenols, R has 2 to 4 carbon atoms and R' and R'' have 3 to 4 carbon atoms, and in "optimum" diphenols, R is an isopropylidene radical, R' and R'' are selected from the group consisting of propylene and butylene radicals, and n is one. Col. 4, lines 38-47. Knapp further states that the diphenol in the preferred polyester material is 2,2-bis(4-hydroxyisopropoxyphenyl)propane. Col. 5, lines 36-38. Fifteen typical diphenols are recited. None of them, or any of the other preferred phenols recited above, is or suggests bisphenol A.

The Commissioner repeatedly emphasizes that many of the diphenols specifically enumerated in Knapp are derivatives of bisphenol A. He argues that Knapp thus suggests the selection of bisphenol A itself. We disagree, because, according to the specification, the diphenol in the esters of claim 1 can only be bisphenol A, not a bisphenol A derivative. While Knapp may suggest certain complex bisphenol A derivatives, it does not describe or suggest bisphenol A and therefore does not motivate the selection of bisphenol A.

"[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests." *In re Burckel*, 592 F.2d 1175, 1179, 201 USPQ 67, 70 (CCPA 1979). Given the vast number of diphenols encompassed by the generic diphenol formula in Knapp, and the fact that the diphenols that Knapp specifically discloses to be "typical," "preferred," and "optimum" are different from and more complex than bisphenol A, we conclude that Knapp does not teach or fairly suggest the selection of bisphenol A. *See In re Belle* 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993), (DNA sequence would not have been obvious in view of prior art reference suggesting a nearly infinite number of possibilities and failing to suggest why among all those possibilities one would seek the claimed sequence). A disclosure of millions of compounds does not render obvious a claim to three compounds, particularly when that disclosure indicates a preference leading away from the claimed compounds.

CONCLUSION

The Board clearly erred in finding that Knapp would have provided the requisite motivation for the selection of bisphenol A in the preparation of the claimed compounds. Accordingly, the decision of the Board affirming the rejection of claim 1 as obvious over Knapp is reversed.

COSTS

No costs.

REVERSED

Court of Appeals, Fifth Circuit

McGaughey v. Twentieth Century Fox Television

No. 93-1652

Decided January 20, 1994

COPYRIGHTS

1. Rights in copyright; infringement — Right to reproduction — Access, copying, and substantial similarity — In general (§213.0503.01)

Federal district court, in copyright infringement action in which plaintiff alleg

ratification can be accepted after expiration of the period for applying for renewal or filing an affidavit of continued use, because it is not a requirement of the statute.[3]

In this case, the renewal application filed October 23, 1989 contains a declaration, pursuant to Trademark Rule 2.20, signed by Anna Veronika Murray dba Murray Space Shoe Corporation, acknowledging co-ownership of the registration with Murray Space Shoe, Inc. and verifying the facts stated in the renewal application. While this document was filed too late to be accepted as a renewal application, it can be accepted for the purpose of ratifying the statements in the application which was filed on August 16, 1988 on behalf of the joint owners of the registration.

Accordingly, the petition is granted. The registration file will be forwarded to the Affidavit-Renewal Examiner, who is directed to consider the renewal application filed August 16, 1988 as being properly executed and filed by the registrant.

Court of Appeals, Federal Circuit

In re Jones

No. 91-1380

Decided February 28, 1992

PATENTS

1. Patentability/Validity — Obviousness — Relevant prior art — Particular inventions (§115.0903.03)

Claimed novel salt of acid commonly known as "dicamba" is not so closely related in structure to substituted ammonium salts disclosed in prior patent as to be prima facie obvious, since claimed salt is primary amine with ether linkage, whereas diethanolamino salt disclosed in reference patent is secondary amine without ether linkage, since claimed salt is plainly acyclic or linear, whereas morpholino salt, which is only substituted ammonium salt of dicamba with ether linkage disclosed in reference patent, is cyclic in structure, and since isopropylamino salt disclosed in reference patent is primary amine, but has iso-structure quite different from that of claimed salt.

2. Patentability/Validity — Obviousness — Relevant prior art — Particular inventions (§115.0903.03)

Claimed novel salt of acid commonly known as "dicamba" cannot be held prima facie obvious in view of salts disclosed in prior patent, even though claimed salt is member of genus of substituted ammonium salts broadly disclosed in reference patent, since reference discloses potentially infinite genus of "substituted ammonium salts" of dicamba, and lists several such salts, but does not specifically disclose salt claimed in application, and since claimed salt is not sufficiently similar to those disclosed in reference as to render it prima facie obvious.

3. Patentability/Validity — Obviousness — Combining references (§115.0905)

Contention that one skilled in herbicidal art would have been motivated to use, with acid commonly known as "dicamba," substituted ammonium salt such as that disclosed in two prior references does not warrant holding that claimed substituted ammonium salt of dicamba for use as herbicide is prima facie obvious, since there is no suggestion for combining disclosures of those references either in references themselves, which are directed to shampoo additives and production of morpholine, respectively, or in knowledge generally available to those skilled in art.

Appeal from the U.S. Patent and Trademark Office, Board of Patent Appeals and Interferences.

Patent application of Rita S. Jones, Michael T. Chirchirillo and Johnny L. Burns, serial no. 07/099,279 (the 2-(2'-aminoethoxy)-ethanol salt of dicamba). From decision upholding rejection of only claim in application, applicants appeal. Reversed.

Melvyn M. Kassenoff, East Hanover, N.J. (Gerald D. Sharkin and Richard E. Villa, East Hanover; Joanne M. Giesser, Palo Alto, Calif., with him on brief), for appellant.

Harris A. Pitlock, associate solicitor (Fred E. McKelvey, solicitor, with him on brief; Richard E. Schafer, of counsel), for appellee.

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[3] This is not inconsistent with Office practice under Section 1 of the Act. An application for registration by joint applicants under Section 1 which is signed by only one party is granted a filing date. Additional declarations by the other owner(s) verifying the facts stated in the application must be submitted during prosecution of the application, before the mark can be approved for publication.

Before Rich, Archer, and Clevenger, circuit judges.

Rich, J.

Rita S. Jones et al. (collectively Jones) appeal from the April 15, 1991 decision of the Patent and Trademark Office (PTO) Board of Patent Appeals and Interferences (Board), Appeal No. 90-1920, sustaining the rejection of claim 1, the only claim of application Ser. No. 07/099,279, titled "The 2-(2'-Aminoethoxy) — Ethanol Salt of Dicamba," as unpatentable under 35 USC 103. We conclude that the PTO has not presented a *prima facie* case of obviousness, and therefore *reverse*.

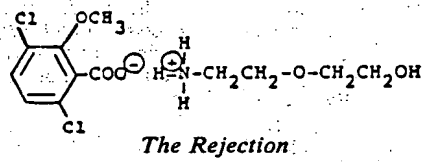
The Invention

The Claimed invention is a novel salt of 2-methoxy-3, 6-dichlorobenzoic acid, which acid is commonly referred to as "dicamba." A known herbicide, dicamba has typically been sold in the form of its known dimethylamine salt.

The sole claim of the application on appeal reads:

1. The 2-(2'-aminoethoxy) ethanol salt of dicamba.

The claimed salt has the following structure:



The Rejection

Claim 1 stands rejected as obvious in view of the combined teachings of the following references:

Richter, U.S. Patent No. 3,013,054, Dec. 12, 1961

Moyle et al., U.S. Patent No. 3,056,669, Oct. 2, 1962

Balassa, U.S. Patent No. 3,725,031, Apr. 3, 1973

Zorayan et al., 88 *Chem. Abstracts* No. 52300j, 1978

Wideman, 86 *Chem. Abstracts* No. 43711a, 1977

Richter, which all agree is the closest prior art, discloses dicamba in free acid, ester, and salt forms, for use as a herbicide. Among the salt forms disclosed are substituted ammonium salts, a genus which admittedly encompasses the claimed salt. Richter does not specifically disclose the claimed 2-(2'-aminoethoxy) ethanol salt, however. Most notably, Richter discloses (emphasis and bracketed word ours):

> Compositions in which X is substituted ammonium are amine salts of 2-methoxy-3, 6-dichlorobenzoic acid [dicamba] and are prepared by the addition of the free acid to various amines. Typical amines which can be used to prepare such amine salts are dimethylamine, trimethylamine, triethylamine, diethanolamine, triethanolamine, isopropylamine, morpholine, and the like. *The resulting products are; respectively, the dimethylamino, trimethylamino, triethylamino, diethanolamino, triethanolamino, isopropylamino, and morpholino salts of 2-methoxy-3, 6-dichlorobenzoic acid.*

Zorayan teaches the amine ($H_2N(CH_2CH_2O)_2H$) used to make the claimed salt, as well as the use of that amine in the preparation of surfactants for shampoos, bath preparations, and emulsifiers.

Wideman also teaches the amine disclosed in Zorayan.

The content of the remaining references is unnecessary to our decision.

The Board upheld the examiner's rejection of claim 1 as obvious, finding that the claimed 2-2'-aminoethoxy) ethanol salt of dicamba and the diethanolamine salt of dicamba specifically disclosed by Richter were "closely related in structure," and that based upon the expectation that "compounds similar in structure will have similar properties," a *prima facie* case of obviousness had arisen. The Board found that Jones' rebuttal evidence (Rule 132 declarations and data reported in the specification) failed to "compare the claimed subject matter with the closest prior art," and accordingly did not serve to rebut the *prima facie* case. This appeal followed.

Analysis

The Solicitor contends that the claimed salt falls within the genus of substituted amine salts of dicamba disclosed by Richter and that, like Richter's genus, the claimed compound has herbicidal activity. Thus the Solicitor urges, under the circumstances of this case, (1) the genus/species relationship and (2) the common utility of the claimed and prior art compounds support the Board's holding of *prima facie* obviousness. Moreover, the Solicitor adds, although the claimed compound is neither a homolog nor a position isomer of those salts specifically disclosed in Richter, it is structurally similar thereto, particularly the diethanolamine salt noted by the Board.

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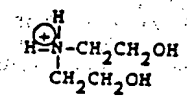
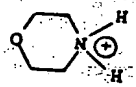
The question of "structural similarity" in chemical patent cases has generated a body of patent law unto itself.[1] Particular types or categories of structural similarity without more have, in past cases, given rise to *prima facie* obviousness; *see, e.g., In re Dillon*, 919 F.2d 688, 692-94, 16 USPQ2d 1897, 1900-02 (Fed. Cir. 1990) (tri-orthoesters and tetra-orthoesters), *cert. denied*, ____ U.S. ____, 111 S. Ct. 1682 (1991); *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978) (stereoisomers); *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977) (adjacent homologs and structural isomers); *In re Hoch*, 428 F.2d 1341, 166 USPQ 406 (CCPA 1970) (acid and ethyl ester). However, none of these types of structural similarity are involved here. And in any event, this court has previously stated that generalization is to be avoided insofar as specific structures are alleged to be *prima facie* obvious one from the other. *In re Grabiak*, 769 F.2d 729, 731, 226 USPQ 870, 872 (Fed. Cir. 1985).

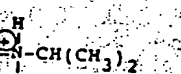
[1] On the basis of the record before us, we cannot sustain the Board's conclusion that the claimed salt and the diethanolamino salt disclosed by Richter are so "closely related in structure" as to render the former *prima facie* obvious in view of the latter. The claimed salt is a primary amine with an ether linkage. The diethanolamino salt disclosed by Richter is a secondary amine, without an ether linkage:



In addition, the only substituted ammonium salt of dicamba expressly disclosed by Richter having an ether linkage is the morpholino salt, which is *cyclic* in structure:



The claimed salt is, plainly, *a*cyclic; i.e., linear. Lastly, while the isopropylamino salt disclosed by Richter is a primary amine, as is the claimed salt, its iso- structure is quite different:



[2] The lack of close similarity of structure is not negated by the fact that the

claimed salt is a member of Richter's broadly disclosed genus of substituted ammonium salts of dicamba. The Solicitor contends that "[t]he relative size of the genus disclosed by the prior art would not appear to be a controlling factor in determining whether a *prima facie* case of obviousness exists for a species encompassed within the described genus," citing *Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 806-09, 10 USPQ2d 1843, 1845-48 (Fed. Cir.), *cert. denied*, ____ U.S. ____, 110 S. Ct. 498 (1989). We decline to extract from *Merck* the rule that the Solicitor appears to suggest — that regardless of how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it. In *Merck*, at issue on appeal was whether claims to a composition of two diuretics, amiloride and hydrochlorothiazide, present in a particular "medically synergistic" weight ratio, would have been obvious in view of a specific prior art disclosure of amiloride in combination with hydrochlorothiazide, one of 1200 such combinations disclosed in the prior art reference. *Id.* at 806, 10 USPQ2d at 1845. Based on the facts before it, including evidence at trial that the experimentation needed to arrive at the claimed dosage was "nothing more than routine," *Id.* at 809, 10 USPQ2d at 1847, the court affirmed the trial court's determination of obviousness. In contrast, though Richter discloses the potentially infinite genus of "substituted ammonium salts" of dicamba, and lists several such salts, the salt claimed here is not specifically disclosed. Nor, as we have explained above, is the claimed salt sufficiently similar in structure to those specifically disclosed in Richter as to render it *prima facie* obvious. Every case, particularly those raising the issue of obviousness under section 103, must necessarily be decided upon its own facts.

[3] The Solicitor points out that, given the breadth of forms of dicamba (free acid, ester, or salt) disclosed by Richter as having herbicidal utility, one of ordinary skill in the art would appreciate that the dicamba group has significance with respect to imparting herbicidal activity to dicamba compounds. Thus, the Solicitor contends, one skilled in the art would have been motivated to use, with dicamba, substituted ammonium salts made from a known amine, such as the amine disclosed by Zorayan and Wideman, and would have expected such a salt to have herbicidal activity. Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some sug-

[1] *See generally* Helmuth A. Wegner, "Prima Facie Obviousness of Chemical Compounds," 6 *Am. Pat. L. Assoc. J.* 271 (1978).

gestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988). We see no such suggestion in Zorayan, which is directed to shampoo additives, nor in Wideman, which teaches that the amine used to make the claimed compound is a byproduct of the production of morpholine. Nor does the broad disclosure of Richter fill the gap, for the reasons discussed above.

Conspicuously missing from this record is any *evidence*, other than the PTO's speculation (if it be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modifications of the prior art salts necessary to arrive at the claimed 2-(2'-aminoethoxy) ethanol salt. *See Grabiak*, 769 F.2d at 731-32, 226 USPQ at 872 ("[I]n the case before us there must be adequate support in the prior art for the [prior art] ester/[claimed] thioester change in structure, in order to complete the PTO's *prima facie* case and shift the burden of going forward to the applicant."); *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984) ("The prior art must provide one of ordinary skill in the art the motivation to make the proposed molecular modifications needed to arrive at the claimed compound.")

Conclusion

We conclude that the PTO did not establish a *prima facie* case of obviousness, and thus did not shift to Jones the burden of coming forward with unexpected results or other objective evidence of non-obviousness. Accordingly, the decision of the Board is *REVERSED*.

District Court, S.D. New York

Lipton v. The Nature Co.

No. 91 Civ. 3007 (RO)

Decided January 16, 1992

COPYRIGHTS

1. Elements of copyright — Statutory elements — Originality (§205.0707)

Plaintiff's compilation of terms of "venery," which are collective terms relating to nature and hunting, is copyrightable, although some terms are generally known and in public domain, since many terms were creatively interpreted from Middle English and therefore are products of plaintiff's imagination, and since arrangement of terms was original, reflecting plaintiff's consideration of factors such as fluidity of language and arrangement's lyrical and poetic potential.

2. Infringement pleading and practice — Jurisdiction (§217.05)

JUDICIAL PRACTICE AND PROCEDURE

Jurisdiction — Personal jurisdiction (§405.11)

Jurisdiction — Venue; transfer of action — In general (§405.1901)

Federal district court in New York has personal jurisdiction over non-resident who granted license to corporate defendant to manufacture and sell products on which are imprinted terms which allegedly infringe plaintiff's copyright, since claims arise from non-resident's contract to supply goods or services in New York, since claims allege commission by non-resident of tortious act outside New York which caused plaintiff injury within New York, and since non-resident should reasonably have expected that such action would have consequences within New York; venue in New York is proper, since copyright venue statute, 28 USC 1400(a), provides that venue is proper in district in which defendant "resides or may be found," and since defendant may be "found" in any district in which defendant is subject to personal jurisdiction.

Action by James Lipton against The Nature Co. and Michael Wein for copyright infringement. On defendants' motion to dismiss or to transfer. Motion denied.

Mark P. Ressler, of Kay, Collyer & Boose, New York, N.Y., for plaintiff.

Noel M. Cook, of Owen, Wickersham & Erickson, San Francisco, Calif., Janet Dore, of Morgan & Finnegan, New York, and John P. Sutton, San Francisco, for defendants.

Owen, J.

Plaintiff, James Lipton, is an etymologist and author of the copyrighted book, *An Exaltation of Larks*, published originally in